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For: Method of Measuring Discrete, Incremental Feedback from Motion Devices

### CLAIMS

1           1.       A method of measuring discrete incremental feedback from motion systems that  
2       create feedback pulses, the method comprising:  
3                   establishing a minimum feedback pulse sampling period;  
4                   accumulating feedback pulses during a sampling period;  
5                   upon the first feedback pulse after the minimum feedback pulse sampling period,  
6       ending the current sampling period and beginning the next sampling period; and  
7                   determining the quantity of feedback pulses accumulated during the current  
8       sampling period.

1           2.       The method of measuring discrete, incremental feedback from motion systems of  
2       claim 1 wherein the minimum feedback pulse sampling period is comprised of one or more  
3       periods of a clock signal.

1           3.       The method of measuring discrete, incremental feedback from motion systems of  
2       claim 2 wherein the period of the clock signal is less than the shortest period between feedback  
3       pulses.

1           4.       The method of measuring discrete, incremental feedback from motion systems of  
2       claim 3 wherein the period of the clock signal is less than or equal to one-tenth the shortest  
3       period between feedback pulses.

1       ~~5.       The method of measuring discrete, incremental feedback from motion systems of~~  
2       claim 2 wherein the minimum feedback pulse sampling period is a multiple of the clock signal  
3       period.

1           6.       The method of measuring discrete, incremental feedback from motion systems of  
2 claim 2 wherein sampling periods can begin and end only concurrently with a clock signal.

1           7.       The method of measuring discrete, incremental feedback from motion systems of  
2 claim 6 further comprising calculating estimated motion velocity by dividing the number of  
3 feedback pulses accumulated during a sampling period by the time period of such sampling  
4 period.

1           8.       The method of measuring discrete, incremental feedback from motion systems of  
2 claim 7 wherein the time period of such sampling period is determined by counting the number  
3 of clock signals occurring during the sampling period.

1           9.       A method of measuring discrete, incremental feedback from motion systems that  
2 create feedback pulses, the method comprising:

3                   providing for a variable feedback pulse sampling period; and  
4                   accumulating feedback pulses during each sampling period.